1 _____

Alyssa's extended family is staying at the lake house this weekend for a family reunion. She is in charge of making homemade pancakes for the entire group. The pancake mix requires 2 cups of flour for every 10 cupcakes.
   a. Write a ratio to show the relationship between the number of cups of flour and the number of pancakes made.
   b. Determine the value of the ratio.
   c. Use the value of the ratio to fill in the following two multiplicative comparison statements.
      The number of pancakes made is _____ times the amount of cups of flour needed.
      The amount of cups of needed is _____ of the number of pancakes made.
   d. If Alyssa has to make 70 pancakes, how many cups of flour will she have to use? (engageny 6.1 Lesson 7)

2 _____

   a. Josiah and Tillery have new jobs at YumYum's Ice Cream Parlor. Josiah is Tillery's manager. In their first year, Josiah will be paid $14 per hour and Tillery will be paid $7 per hour. They have been told that after every year with the company, they will each be given a raise of $2 per hour. Is the relationship between Josiah's pay and Tillery's pay rate proportional? Explain your reasoning using a table.

   b. A recent study claimed that in any given month, for every 5 text messages a boy sent or received, a girl sent or received 7 text messages. Is the relationship between the number of text messages sent or received by boys proportional to the number of text messages set or received by girls? Explain your reasoning using a graph on the coordinate plane. (engageny 7.1 Mid-Module Assessment)

3 _____

For every two dollars that Pam saves in her account, her brother saves five dollars in his account.
a. Determine a ratio to describe the money in Pan's account to the money in her brother's account.
b. If Pam has 40 dollars in her account, how much money does her brother have in his account? Use a tape diagram to support your answer.
c. Record the equivalent ratio using the information from part b above.
d. Create another possible ratio that describes the relationship between Pam's account and her brother's account. (engageny 6.1 Lesson 3)

4 _____

Value Grocery Mart and Market City are both having a sale on the same popular crackers. McKayla is trying to determine which sale is the better deal. Use the information below to determine which store has the better deal. Explain your thinking. (Remember to round your answers to the nearest penny.)
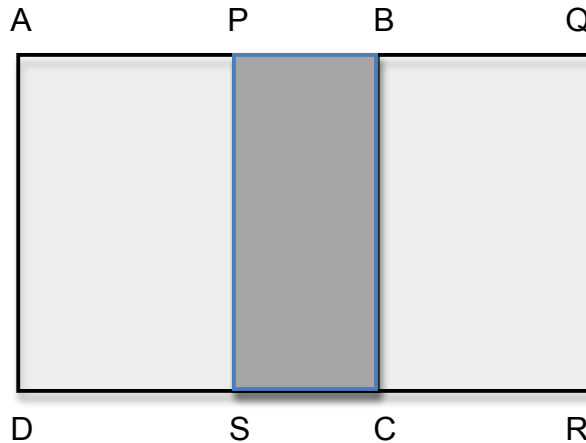
Value Grocery Mart

Boxes of Crackers	3	6	9	12
Cost (dollars)	5	10	15	20

Market City:
☐ = 1.75 △, where ☐ represents the cost in dollars and △ represents the number of boxes of crackers. (engageny 6.1 Lesson 20)

5 _____

Two congruent squares, *ABCD* and *PQRS*, have side length 15. They overlap to form the 15 by 25 rectangle *AQRD* shown. What percent of the area of rectangle *AQRD* is shaded? (illustrative mathematics 6.RP)

A   P   B   Q

D   S   C   R

6 _____

Travis was attempting to make muffins to take to a neighbor that had just moved in down the street. The recipe that he was working with required ¾ cup of sugar and 1/8 cup of butter.

a. Travis accidentally put a whole cup of butter in the mix.
b. What is the ratio of sugar to butter in the original recipe? What amount of sugar does Travis need to put into the mix to have the same ratio of sugar to butter that the original recipe calls for?
c. If Travis wants to keep the ratios the same as they are in the original recipe, how will the amounts of all the other ingredients for this new mixture compare to the amounts for a single batch of muffins?
d. The original recipe called for 3/8 cup of blueberries. What is the ratio of blueberries to butter in the recipe? How many cups of blueberries are needed in the new enlarged mixture? (7.RP illustrative mathematics, Cooking with the Whole Cup)

7 _____

The ratio of the number of boys to the number of girls at school is 4:5.

    a. What fraction of the students are boys?

    b. If there are 120 boys, how many students are there altogether? (illustrative mathematics 6.RP Ratio of boys to girls)

8 _____

Nate and his sister Natalie are walking around the track at school and they're walking at a steady rate. Nate walks 5 feet in 2 seconds while Natalie walks 2 feet in the same amount of time.
    a. Draw a diagram or picture that represents Nate and Natalie's walk around the track.
    b. Set up a table and draw a graph to represent this situation. Let the x-axis represent the number of feet that Nate walks and the y-axis represent the number of feet that Natalie walks.
    c. What patterns do you see in the table? Explain the pattern. Express this as an equation.
    d. How do you read the graph? Explain what the coordinate (20,8) means in the context of Nate and Natalie's walk.
    e. When Nate walks 45 feet, how far will Natalie walk? Explain in writing or show how you found your answer. (CCGPS Gr. 7 Unit 3 p. 37)

9 _____

Ms. Albero decided to make juice to serve along with the pizza at the Student Government party. The directions said to mix 2 scoops of powdered drink mix with a half a gallon of water to make each pitcher of juice. One of Ms. Albero's students said she will mix 8 scoops with 2 gallons of water to get 4 pitchers. How can you use the concept of proportion to decide whether the student is correct? (engageny 7.1 Lesson 2)

10 _____

The table below shows the combination of dry prepackaged mix and water to make concrete. The mix says for every 1 gallon of water stir 60 pounds of dry mix. We know that 1 gallon of water is equal to 8 pounds. Using the information provided in the table, complete the remaining parts of the table. (engageny 7.1 Lesson 13)

Dry Mix (pounds)	Water (pounds)	Total (pounds)
	8	
75	10	
		$14\frac{1}{6}$
$4\frac{1}{2}$		

11 _____

A fruit salad consists of blueberries, raspberries, grapes, and cherries. The fruit salad has a total of 280 pieces of fruit. There are twice as many raspberries as blueberries, three times as many grapes as cherries, and four times as many cherries as raspberries.

How many cherries are there in the fruit salad? (6.RP, illustrative mathematics)

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12 _____

a. Hippos sometimes get to eat pumpkins as a special treat. If 3 hippos eat 5 pumpkins, how many pumpkins per hippo is that?

b. Lindy made 24 jelly bread sandwiches with a 16-ounce jar of jelly. How many ounces of jelly per sandwich is that?

c. Purslane bought 350 rolls of toilet paper for the whole year. How many rolls of toilet paper per month is that?

d. In the world's longest running experiment, scientists have tried to capture tar pitch dripping on camera. In the past 86 years, 9 drops have formed. How many years per drop is that?

e. Imagine that 12 goats got into a dumpster behind a pizza parlor and ate 3 pizzas. How many goats per pizza would that be? (illustrative mathematics 6.RP)

13 _____

Jim and Jesse each had the same amount of money. Jim spent $58 to fill the car up with gas for a road-trip. Jesse spent $37 buying snacks for the trip. Afterward, the ratio of Jim's money to Jesse's money is 1:4. How much money did each have at first? (illustrative mathematics, 6.RP)

14 _____

The table below shows the price for the number of roses indicated.

Number of Roses	3	6	9	12	15
Price (Dollars)	9	18	27	36	45

Is the price proportional to the number of roses? How do you know?

Find the cost of purchasing 30 roses. (engageny 7.1 Lesson 3)